NUMB. XXXV.

The Universal Instructor in all Arts and Sciences:

AND

PENNSYLVANIA GAZETTE

To be continued Weekly. *The 28th of the 6th Month*, 1729.

AIR

M. *Amontons* first discover'd that Air, the denser it is, the more it will expand with the same Degree of Heat.

On this Foundation, the same ingenious Author has a Discourse to prove, "that the "Spring and Weight of the Air, with a mo- "derate Degree of Warmth, may enable it to "produce even Earthquakes, and other of the "most vehement Commotions in Nature."

According to the Experiments of this Author, and M. *de la Hire*, a Column of Air, on the Surface of the Earth 36 Fathoms high, is equal in weight to three Lines Depth of Mercury; and it is found, that equal Quantities of Air possesses Spaces reciprocally proportional to the Weights wherewith they are pressed. The Weight of the Air therefore, which would fill the whole Space possessed by the terrestrial Globe, would be equal to a Cylinder of Mercury, whose Base is equal to the Surface of the Earth, and its Height containing as many Times three Lines, as the Atmospherical Space contains Orbs equal in weight to that of 36 Fathoms, whereof the Experiment was made. Hence, taking the densest of all Bodies, Gold, whose Gravity is about 14630 times greater than that of Air in our Orb, it is easy to compute, that this Air would be reduced to the same Density as Gold, by the Pressure of a Column of Mercury 14630 times 28 Inches high, *i. e.* 409640 Inches; since the Bulks of Air, in that Case, would be in the reciprocal Ratio of the Weights wherewith they are pressed. This 409640 Inches, therefore, expresses the Height at which the Barometer must stand, where the Air would be as heavy as Gold, and the Number $2\frac{51632}{409640}$ Lines the Thickness to which our Column of 36 Fathoms of Air, would be reduced in the same Place. Now we know, that 409640 Inches, 43528 Fathoms, is only the 24th Part of the Semidiameter of the Earth; and when you are past That, whatever Matters there be, they must be heavier than Gold: 'Tis not improbable therefore, that the remaining Sphere of 6451538 Fathoms Diameter, may be full of dense Air, heavier, by many Degrees, than the heaviest Bodies among us. Hence, again, as it is proved, that the more Air is compressed, the more does the same Degree of Fire encrease the Force of its Spring, and render it capable of so much the greater Effect; and that, for Instance, the Heat of boiling Water encreases the Spring of our Air, beyond what it ordinarily is, by a Quantity equal to one third of the Weight wherewith it is pressed: We may infer that a Degree of Heat, which in our Orb can only produce a moderate Effect, may have a very violent one in such lower Orb; and that as there may be many Degrees of Heat in Nature, beyond that of boiling Water, 'tis probable there may be some, whose Violence, thus assisted by weight of the Air, may be sufficient to tear asunder the solid Globe.

This elastick Power of the Air, is the second great Source of the Effects of this important Fluid. In virtue hereof, it insinuates into the Pores of Bodies, carrying with it this prodigious Faculty of expanding, and that so ealy to be excited; whence it must necessarily put the Particles of the Bodies it is mix'd withal, into perpetual Oscillations. In effect, the Degree of Heat, and the Air's Gravity and Density, and consequently its Elasticity and Expansion, never remaining the same for two Minutes together, there must be an incessant Vibration, or Dilatation and Contraction, in all Bodies.

This Reciprocation we observe in several Instances, particularly Plants, the Tracheæ or Air-Vessels whereof, do the Office of Lungs: For the contained Air alternately expanding and contracting, as the Heat encreases or diminishes, by Turns presses the Vessels, and eases 'em again; and thus promotes a Circulation of their Juices.

Hence we find, that no Vegetation or Germination will proceed *in vacuo*. Indeed Beans have been observed to grow a little tumid therein; which has led some to attribute that to Vegetation, which was really owing to no other than the Dilatation of the Air within 'em.

From the same Cause it is, that the Air contain'd in the Bubbles in Ice, by its continual Action, bursts the Ice: And thus Glasses and other Vessels frequently crack, when their contained Liquors are frozen. Thus, also, entire Columns of Marble sometimes cleave in the Winter-Time, from some little Bubble of included Air's acquiring an increased Elasticity.

From the same Principle arises all Putrefaction

tion and Fermentation; neither of which will proceed, even in the beſt diſpoſed Subjects in *vacuo*.

In this we have a ſingular Inſtance of the wonderful Efficacy of Air, that it can change the two Kingdoms, and convert Vegetable Subſtances into Animal, and Animal into Vegetable.

In Effect, all natural Corruption and Alteration ſeems to depend on Air; and Metals, particularly Gold, only ſeem to be durable and incorruptible, in virtue of their not being pervious to Air. Accordingly, Names ſlightly wrote in the Sand, or Duſt on the Tops of High Mountains, have been known to remain 40 Years, without being in the leaſt altered or effaced.

Religious Courtſhip continued.

We muſt now go back to the Family, which we began with: The Father of the young Ladies was gone into the Country to viſit his Siſter, who was newly become a Widow; little thinking whatever his eldeſt Daughter had ſaid to him, that his youngeſt Daughter would make ſuch ſhort Work with her Lover in his Abſence, and that ſhe would quite put an End to his Courtſhip all at one Blow, as ſhe had done, before he came home again.

He ſpent ſome little Time at his Siſter's, to comfort her, and aſſiſt her in her Affairs, after the Loſs of her Husband; and particularly becauſe her eldeſt Son being of Age, and juſt upon marrying, ſhe intended to remove; the Houſe which was the Seat of the Family, being to be fitted up for her new Daughter-in-Law: Upon theſe Circumſtances he began the following Diſcourſe with his Siſter.

Bro. *Well, pray Siſter, what kind of a Lady has my Nephew got? Is he well marry'd?*

Siſt. *Truly, Brother, I can hardly tell how to anſwer you that Queſtion; I believe every body will be better pleas'd than I.*

Bro. *Why, Siſter, what is the Caſe, pray; that you are ſo difficult?*

Siſt. *O Brother! the main Difficulty that has made me all my Days the moſt miſerable of all Women.*

Bro. *What! Religion, I warrant you; you would have had him have married a Nun?*

Siſt. *Nay, I don't know why I ſhould deſire a religious Woman to come into the Family.*

Bro. I never ſaw the like of you, *Siſter*, you are always a complaining; you have had one of the beſt humour'd, goodeſt condition'd, merrieſt Fellows in the World for this five and twenty Years, and yet you call your ſelf a miſerable Woman: What could you ask in a Husband, that you had not in Sir *James?*

Siſt. Dear Brother, is this a Time for me to tell you what I wanted in *Sir James*, when he is in his Grave? I have wanted nothing in him, that a Woman could deſire in a Husband, he was rich in his Eſtate, a lovely, compleat handſome Gentleman in his Perſon, and heldit to the laſt; he was the beſt-humour'd Man, that ever Woman had, and kind *as a Husband*, to the laſt Degree; I never ſaw him in a Paſſion in my Life; he was a Man of good Senſe and good Learning; a Man of Honour, good Breeding, and good Manners; none went beyond him; all the Country knows it, and lov'd him for it.

Bro. Very well; and yet my Siſter a miſerable Woman! would not any Man laugh at you? I think, Siſter, if ever you were a miſerable Woman, it is now; becauſe you have loſt him.

Siſt. Well, that's true too, I am ſo now, many Ways, and ſome perhaps that you do not think of, Brother.

Bro. I know what you mean again; I warrant you ha' been whining over him, to think what is become of him now: Prithee what's that to you or I? What can you by your Concern for him, do in this Caſe, one way or other? Can't you leave him to God's Mercy, now he's gone?

Siſt. Dear Brother, it is in vain to anſwer you; I muſt leave him to God's Mercy, and ſo we muſt leave our ſelves; but do you think, 'tis not an afflicting dreadful Thing to me, that know how he liv'd, and how he dy'd, to reflect upon his Condition, if I had any Love for him?

Bro. Why, how did he live? He liv'd like a Gentleman, as he was.

Siſt. That's true; and that, as Times go; *Brother*, is to live like a Heathen; you know well enough, what a Life I have had with him on that only Account; you know, he was ſo far from having any ſenſe of Religion, or of his Maker, on his Mind, that he made a Jeſt, and a Mock of it all his Days, even to the laſt.

Bro. I know he did not trouble himſelf much about it.

Siſt. Nay, he not only did not himſelf, but he did not really love to have any body about him religious: I have known many Gentlemen that have had no Religion themſelves, yet value it in others, and value and reverence good Men; but he thought all People Hypocrites, that talk'd of any thing religious; and could not abide to ſee any Appearance of it in the Houſe; it was the only thing we had any Difference about, all our Days.

Bro. And I think you were a great Fool to have any Difference with him about that: Could not you have kept your Religion to your ſelf, and have let him alone to be as merry and as frolickſome as he would without it?

Siſt. Nay, I was obliged to do that, you may be ſure; you know it well enough.

FOREIGN AFFAIRS.

We learn from Conſtantinople, that the new Printing-Houſe was carried on with all imaginable ſucceſs: That they had already printed a Dictionary and Grammar, in the Turks Language; and that they talked of eſtabliſhing an Academy like that of Paris, under the Direction of ſome learned Frenchmen.

Paris,

Paris, April 20. A certain Phyſician here has invented a Salt, which he calls Sympathetick; which Salt was tried on an old Man laſt Week, who had the Dropſy to a very great Degree; and upon the bare Application of this Salt to the Parts aggriev'd, the Dropſy vaniſhed in 24 Hours Time. Soon after, another more notable Experiment was made of the Salt. The Phyſician cauſed a young Cock to be brought him, and ordered his Man, with an Inciſion-Knife, to cut off one of his Wings, which was handed about for the ſpace of a Minute, and laid upon the Table; after which, the Doctor taking it up, applied his Sympathetick Salt to the wounded Place, whilſt his Aſſiſtant did the like to the Body of the Cock, and putting them together, the Wing ſtuck on; but it was obſerved the Cock drooped for three Hours after, and then appeared brisk as before the Operation.

London, June 4.

We hear that at the laſt Aſſizes for the County of Surrey, ſeveral Indictments were prefered for the Murder of new-born Children. Upon this Occaſion the High Sheriff and Juſtices, together with the Grand Jury and other Gentlemen preſent, took into their Conſideration theſe and the frequent other Inſtances of this kind; and hereupon reflecting that ſuch Murders, and many others never diſcovered, have ſprung, as well from Indigence and Poverty, as the Senſe of Shame, did, out of their tender Regard to human Species, and for the ſaving of many Lives, that in Time may become uſeful Hands to their Country, begin a Subſcription for an Hoſpital for the Maintenance of Foundling-Children, legitimate or baſe-born; and at this Aſſize only, the Subſcription amounted to near 1400 *l.*

As this Charity is the only Charity wanting in *England*, and a good Beginning is now made to it, (ſays our Author,) we hope it will not be unacceptable to the Publick, if, for the promoting ſo generous and human a Work, the Tenor of the Subſcription be here inſerted, as follows;

WE whoſe Names are under-written do ſeverally oblige our Heirs and Executors within Six Months after our reſpective Deaths, to pay to ſuch Truſtees, as the Lord Chancellor and Chief Juſtices of the Courts of King's-Bench *and* Common-Pleas, *or any two of them for the Time being, ſhall appoint, ſuch Sums of Money as are ſet againſt our Names to be apply'd as they, or any two of them, ſhall direct, for or towards an Hoſpital, for the Maintenance and Education of Foundling Children.*

N. B. Upon the Cloſe of the next Aſſizes the Subſcriptions will be returned to the Lord Chancellor, and proper Advertiſements given to ſuch are willing, in their own Times, to pay in their Subſcription-Money.

The Grand Jury have lately made the following Preſentment againſt Mr. Henly the Clergyman, formerly mentioned in this Paper.

WHereas the Act made in the firſt Year of the Reign of K. William *and Qu.* Mary, *for exempting their Majeſties Proteſtant Subjects diſſenting from the Church of* England *from the Penalties of certain Laws, was wiſely deſigned as an Indulgence for the tender and ſcrupulous Conſciences of ſuch Diſſenters, and as a Means to unite all the Proteſtant Subjects in Intereſt and Affection: And whereas it is notorious, that* John Henley, *Clerk, in Prieſts Orders, according to the Form of the Church of* England, *did about three Years ſince hire a large Room over the Market-Houſe in* Newport-Market, *within this City and Liberty of* Weſtminſter, *and cauſe the ſaid Room to be regiſter'd in the Court of the Archdeacon of* Middleſex *(purſuant to the ſaid Act of Toleration) as a Place for religious Worſhip, to be performed therein by him the ſaid* John Henly, *who pretended to diſſent from the Church of* England *on Account of Infant-Baptiſm, (altho' that has been the leaſt of his Exerciſes, nor are his Audiences of that Perſwaſion,) and by his Advertiſements in the publick News-papers, invited all Perſons to come thither, and take Seats for twelvepence a-piece, promiſing them Diverſion under the Titles of* Voluntaries, Chimes of the Times, Roundelays, College-Bobs, Madrigals, and Operas, *&c. And whereas it appears to us by Information upon Oath, that the ſaid* John Henley, *notwithſtanding his profeſſed Diſſention and Separation from the Church of* England, *has uſually appeared in the Habit worn by Prieſts of the Church of* England, *and in that Habit has for ſeveral Months paſt, upon one or more Days in the Week, made uſe of the ſaid Room for Purpoſes very different from thoſe of religious Worſhip; and that he has there diſcourſed on ſeveral Subjects of Burleſque and Ridicule and therein, and in his Comments upon the publick News-Papers, and in his Weekly Advertiſements, has utter'd ſeveral indecent, libertine, and obſcene Expreſſions, and made many baſe and malicious Reflections upon the eſtabliſhed Churches of* England *and* Scotland, *upon the Convocation, and almoſt all Orders and Degrees of Men; and upon particular Perſons by Name, and even thoſe of the higheſt Rank. And whereas it appears to us more particularly by Information upon Oath, that he the ſaid* John Henly *did on the* 12*th Day of* December *laſt cauſe to be publiſhed in the* Daily Poſt, *an Advertiſement, giving Notice, that on the Evening of the next Day he would pronounce King* Lear's Oration in an Apology for Madneſs; *on which Evening he did in the ſame Room, (called by him the Oratory) in the Habit of a Clergyman of the Church of* England, *repeat a Speech out of the Tragedy of King* Lear, *acting in ſuch Manner, and with ſuch Geſtures, as are practiſed in the Theatres; and that the ſaid* John Henley *did on the* 17*th Day of the ſame Month cauſe to be publiſhed in the ſaid* Daily Poſt, *another Advertiſement, inviting ſuch as went the following Evening to the Ball in the* Hay-Market, *to come firſt to his ſaid Room in their Habits and Maſques for twelve Pence a-piece; and that, according to ſuch Invitation, ſeveral Perſons ſo dreſs'd and mask'd did then and there appear, and were admitted upon their paying the ſaid Moneys for their Seats.*

We the Grand Jury for the City and Liberty of Weſt-

Weſtminſter, *conceiving that this Behaviour of the ſaid* John Henley *is contrary to the Intention of the ſaid Act of Toleration, and tends to bring a Diſrepute upon the Indulgence ſo charitably granted to truly ſcrupulous Diſſenters, that it gives great Offence to all ſerious Chriſtians, is an Outrage upon civil Society, and of dangerous Conſequence to the State; and particularly, that the ſaid Aſſemblies by him held, as aforeſaid, are unlawful ones, his ſaid Room not being licenſed for Plays, Interludes, or Maſquerades, do preſent the ſaid* John Henly, *and his Accomplices, and his Aſſiſtants, to us unknown, as guilty of unlawful Aſſemblies, Routs, and Riots, committed the 13th Day of* December *laſt, and on the 18th Day of the ſaid Month of* Dedember, *and the Firſt Day of this Inſtant* January, *by him and his Aſſiſtants being ſo unlawfully aſſembled for the unlawful Purpoſes aforeſaid, to the Number of Fifty on each of the ſaid Days and Times, againſt the Peace of our Sovereign Lord the King, his Crown and Dignity; and pray this Court to cauſe proper Proceedings in Order to bring to Puniſhment the ſaid* John Henly *and his Accomplices by due Courſe of Law.*

As this Preſentment is no otherwiſe inſerted than to ſhew the Folly and Ridiculouſneſs of it, 'tis worthy Remark, that the vileſt Slaves to Bigotry, Ignorance and Nonſence, are always more zealous to proſecute thoſe who from generous Motives, attempt to open their Eyes, than they are to proſecute the Authors of the moſt deteſtable Enormities, tho' they are ſworn to the latter, and have no other Plea to meddle with the former, than their own acquir'd blind Zeal, which has always been the greateſt Curſe in its Effects, Humane Nature can be ſubject to.

We are credibly inform'd that the late Works of the Reverend Mr. Wooliſton, relating to the Miracles of our Saviour, (notwithſtanding the vigorous Proſecutions commenc'd againſt him, for the ſame) are tranſlated into *Latin*, for the Uſe of Foreigners. As we have the following remarkable Lines communicated to us upon that Occaſion, we here inſert 'em for our more judicious Readers,

In Old King Harry's *Days, (that Odd Piece,)*
Whoſe * Reformation *ſprang from* Cod-piece,
Arminianiſm, (*we are told*)
Wiſe Mother-Church, *for* Truth *did hold,*
But when Queen Beſs *reform'd the* Church
She left thoſe Doctrines in the Lurch;
Jack Calvin's *Tenets, then, alas!*
For Sterling Truth *did current paſs;*
But when that Jemmy *took the Crown,*
Arminius *ran the other down.*
Thus what was Heterodox *One Year,*
The Next, did Orthodox *appear,*
While Men were govern'd by their Fancies,
(*As ſome love* Plays, *and ſome* Romances)
So Wooliſton's *Works, (tho' many rage)*
Will ſhine Moſt bright another Age.

* *Hiſtorians relate that King Henry* VIII. who never ſpared Man in his Anger, or Woman in his Luſt, *having lived many Years with Queen* Katharine, *formerly his Brother's Wife, and pretending a Scruple of Conſcience (or as others ſay for the Love of* Anne Bullen) *he got a Divorce from Queen* Katharine, *which the* Pope *refuſing to allow of, the King was ſo enrag'd that he flung off the* Pope's *Supremacy and Authority in* England, *and made ſeveral other Advances againſt the See of* Rome. *Hence the* Papiſts, *to this very Day, call it, by Way of Reproach, King* Harry's Codpiece Reformation.

Dublin, May 6. Laſt Night about 12 o' clock, a Fire broke out in a Warehouſe, belonging to Mr. William Claucey, Merchant, which conſumed 9 or 10 Warehouſes, well ſtock'd with Wine and Brandy, which made the greateſt Fire that ever was ſeen in this City, and alſo his Dwelling-Houſe, and one of the Water-Engines were conſumed by the Brandy which run about the Street on Fire; ſeveral Ships and Gabbards, which lay at the back of the Warehouſes, were obliged to cut their Cables, and go into the middle of the River, to prevent their being burnt by the Brandy which run from the Warehouſes into the River. The Loſs is computed at ſeveral Thouſand Pounds.

Philadelphia, *Entred Inwards, Auguſt*, 28.
Sloop *Bleſſing*, Jeremiah Peniſton, *from* Anguilla.
Scooner John, Thomas Wright, *from Madera.*
Sloop *Keith*, W. Spafford, *from* Antegoa.
Sloop *Speedwell*, John Tonkin, *from* St. Chriſtophers.

Entred Outwards.

Snow John & David, *Robert Jemiſon*, to *Glaſcow.*
Brig. Proſperity, *Robert Hamilton*, ditto.
Ship John & Anne, *Thomas Warcup*, to Plymouth.
Sloop *Nancy*, David Tynes *to* Mountſerrat.

Cleared.

Sloop *Endeavour*, Richard Robinſon, *New-York.*
Brig. *Sarah & Mary*, Oſwald Peel, *to* Barbadoes.

The following new *Books to be ſold by* S. Keimer.

THE Religion of Nature delineated.

2. The Fable of the Bees; or Private Vices publick Benefits. With an Eſſay on Charity and Charity-Schools, and a Search into the Nature of Society.

3. An Anſwer to the Fable of the Bees.

4. A Compleat Hiſtory of the Holy Bible, contain'd in the Old and New Teſtament: In which are inſerted the Occurrences that happen'd during the ſpace of about 400 Years, from the Days of the Prophet *Malachi* to the Birth of our bleſſed Saviour, and that have been omitted in all or moſt of the former Works of this Nature. The whole illuſtrated with Notes, explaining ſeveral difficult Texts, and reconciling many ſeeming Contradictions in the Tranſlations, as well Engliſh as others, of the ſacred Scriptures. Adorn'd with above 150 Cuts, engraven by *J. Sturt*. In 3 Volumes. By *Laurence Howel*, A. M. The Fourth Edition, corrected.

PHILADELPHIA: *Printed by* Samuel Keimer, *where Subſcriptions are taken in for this Paper, at* Ten Shillings *a Year, and Advertiſements inſerted at* Three Shillings *each.*